

Clean Copy of the Current Claims as Amended

4. An adjustable back fence for work piece milling on woodworking tools chosen from the group consisting of a wood shaper, a router table and a table saw, the adjustable back fence comprising:

a. an indexing system comprising:

1) an indexing channel system including at least one channel having an elongated slot, the channel having a channel stop at one end of the elongated slot, the channel being adjustably attachable to the woodworking tool so that the channel is movable on and secured to the woodworking tool in a desired configuration with respect to the woodworking tool;

2) at least one spacer of predetermined length that fits within and is retained in the elongated slot of the channel; and

b. a horizontal member attachable to the indexing system through at least one adjustable connection, the connection having a connection member extending into the elongated slot of the channel, the connection member interacting with the elongated slot to secure the horizontal member to the channel in a spaced relationship from the channel stop, the spaced relationship determined by the length of the spacer;

whereby, once the indexing channel system is secured to the woodworking machine, the horizontal member is positioned a distance from a desired part of the woodworking machine such as a cutting portion of such woodworking machine in a precisely determined distance from the desired part of the woodworking machine, the distance determined by the length of the spacer.

11. The adjustable back fence of claim 4 further comprising a bracket interlocking the adjustable back fence to a fence system.

13. The adjustable back fence of claim 4 wherein: the channel of the indexing channel system is an extruded piece; the elongated slot is formed in cross-section in an upright or inverted T shape; and the connection includes anchoring means interacting with the elongated slot for securing the horizontal member to the indexing channel system.

14. The adjustable back fence of claim 4 wherein the spacer of predetermined length may either have a preset length or an adjustable length.

16. The adjustable back fence of claim 14 wherein the spacer of predetermined length comprises a body having a threaded hole and an opposed end and a hex bolt having a head, the hex bolt having threads that are threaded into the threaded hole of the body whereby the distance from the opposed end of the body and the head of the hex bolt, and consequently the length of the spacer, is determined by rotating the hex bolt into or out of the threaded hole of the body.

17. The adjustable back fence of claim 14 wherein the spacer of predetermined length comprises:

at least two finger gauges aligned side by side, each finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;

a connecting bolt extending through the holes in the finger gauges, the connecting bolt holding the gauges in side by side alignment.

18. The adjustable back fence of claim 14 wherein the spacer of predeterminable length comprises:

at least three relatively thick finger gauges aligned side by side, each relatively thick finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;

at least three relatively thin finger gauges aligned side by side, each relatively thin finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;

a first connecting bolt extending through the holes in the finger gauges, the first connecting bolt holding the gauges in side by side alignment.

19. The adjustable back fence of claim 18 wherein each of the at least three relatively thin finger gauges are each one third the thickness of one of the relatively thick finger gauges.

20. The adjustable back fence of claim 18 further comprising:

a second connecting bolt;

a pair of plates located on opposed sides of the finger gauges, the pair of plates attached to and pivoting about the first connecting bolt, the pair of plates having holes at one end to allow the second connecting bolt to pass therethrough; and

a block located between the pair of plates at one end of the finger gauges, the block having a hole extending entirely through the block, the hole in the block holding the second connecting bolt whereby the block pivots about the second connecting bolt.

21. An adjustable back fence for work piece milling on woodworking tools chosen from the group consisting of a wood shaper, a router table and a table saw, the adjustable back fence comprising:

a. an indexing system comprising:

1) an indexing channel system including at least one channel having an elongated slot, the channel having a channel stop at one end of the elongated slot, the channel being adjustably attachable to the woodworking tool so that the channel is movable on and secured to the woodworking tool in a desired configuration with respect to the woodworking tool wherein:

the channel of the indexing channel system is an extruded piece;

the elongated slot is formed in cross-section in an upright or inverted T shape; and

the connection includes anchoring means interacting with the elongated slot for securing the horizontal member to the indexing channel system;

2) at least one spacer of predeterminable length that fits within and is retained in the elongated slot of the channel wherein the spacer of predeterminable length may either have a preset length or an adjustable length; and

b. a horizontal member attachable to the indexing system through at least one adjustable connection, the connection having a connection member extending into the elongated slot of the channel, the connection member interacting with the elongated slot to secure the horizontal member to the channel in a spaced relationship from the channel stop, the spaced relationship determined by the length of the spacer;

whereby, once the indexing channel system is secured to the woodworking machine, the horizontal member is positioned a distance from a desired part of the woodworking machine such as a cutting portion of such woodworking machine in a precisely determined distance from the desired part of the woodworking machine, the distance determined by the length of the spacer.

22. The adjustable back fence of claim 21 further comprising a bracket interlocking the adjustable back fence to a fence system.

23. The adjustable back fence of claim 21 wherein the spacer of predeterminable length comprises a body having a threaded hole and an opposed end and a hex bolt having a head, the hex bolt having threads that are threaded into the threaded hole of the body whereby the distance from the opposed end of the body and the head of the hex bolt, and consequently the length of the spacer, is determined by rotating the hex bolt into or out of the threaded hole of the body.

24. The adjustable back fence of claim 21 wherein the spacer of predeterminable length comprises:

at least two finger gauges aligned side by side, each finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;

a connecting bolt extending through the holes in the finger gauges, the connecting bolt holding the gauges in side by side alignment.

25. The adjustable back fence of claim 21 wherein the spacer of predeterminable length comprises:

at least three relatively thick finger gauges aligned side by side, each relatively thick finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;

at least three relatively thin finger gauges aligned side by side, each relatively thin finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;

a first connecting bolt extending through the holes in the finger gauges, the first connecting bolt holding the gauges in side by side alignment.

26. The adjustable back fence of claim 25 wherein each of the at least three relatively thin finger gauges are each one third the thickness of one of the relatively thick finger gauges.

27. The adjustable back fence of claim 25 further comprising:
 - a second connecting bolt;
 - a pair of plates located on opposed sides of the finger gauges, the pair of plates attached to and pivoting about the first connecting bolt, the pair of plates having holes at one end to allow the second connecting bolt to pass therethrough; and
 - a block located between the pair of plates at one end of the finger gauges, the block having a hole extending entirely through the block, the hole in the block holding the second connecting bolt whereby the block pivots about the second connecting bolt.